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(54) FLOOR COVERING WITH DESIRABLE SEAMING CHARACTERISTICS

(71) We, CHAMPION INTERNATIONAL CORPORATION, a Corporation organised and existing under the laws of the State of New York, United States of America, of One Landmark Square, Stamford, State of Connecticut 06901, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to floor coverings and more particularly to a floor covering having desirable seaming characteristics.

Many rooms in which floor coverings are to be used are wider than the greatest width at which such coverings are conventionally made. In such rooms, the floor is completely covered by butting matching pieces of floor covering. With many types of patterned floor coverings, including short pile carpeting, it is difficult to hide the seam between the butted pieces. The seam is readily discernible due primarily to the discontinuities in the pattern occurring at the seam. These discontinuities are readily noticeable even if the seam itself is mechanically perfect.

With prior art patterned floor coverings, the only way to effectively "hide" a seam is to cut the piece of floor covering so as to match patterns on opposite sides of the seam. While this practice eliminates discontinuities at the seam, a considerable amount of floor covering material may be wasted as a result.

The present invention is a patterned carpet which can be butted with any of four sides of a similarly-patterned carpet to form a well "hidden" seam without the step of matching patterns at the seam.

A floor covering made according to this invention has a pattern on a contrasting background. The pattern includes randomly-oriented chains of repeated, connected symbols and randomly-oriented chains of repeated, discontinuous symbols.

While the specification concludes with claims particularly pointing out and distinctly claiming that which is regarded as the present invention, further details of a preferred embodiment of the invention may be more readily ascertained from the following detailed description when read in conjunction with the accompanying drawings wherein:

Figure 1 is a plan view of one section of a low-pile carpet having a pattern made in accordance with the present invention;

Figure 2 depicts two slightly-separated pieces of carpet, each of which has the same pattern as is shown in Figure 1; and

Figure 3 shows the carpet pieces of Figure 2 butted together.

Referring to Figure 1, which is a reproduced photograph of one section of low-pile carpeting made in accordance with the present invention, the pattern includes a number of randomly-oriented chains or lengths of symbols appearing on a contrasting background. The symbols within these chains may be of different shapes and configurations. The symbols can be characterized as being of two generic types, connected and discontinuous.

A chain of connected symbols is bracketed at 10 in Figure 1. Each symbol in this chain is a small square linked or connected to the adjoining square. Another form of a chain of repeated, connected symbols is shown at 12. This chain is what is sometimes referred to as a Greek key design.

The particular shapes of the symbols vary. While some are angular, such as those shown at 10 and 12, others may be rounded such as those in the chain shown at 14. What the various connected chains have in common is that each symbol is linked or connected to the adjacent symbol to form a chain in which at least one line extends from one end of the chain to the other without interruption.

The second generic type of symbol chain consists of repeated symbols which are adjacent but not actually connected with identical symbols. One such chain is shown at 16 as a series of slightly separated squares. Another example of this type of chain is illustrated at 18 as a number of parallel marks.

As was the case with the chains of repeated connected symbols, it is not necessary that the symbols in the discontinuous

chains be angular. The discontinuous symbols can also be rounded.

These chains are preferably formed of a single color material which appears on a contrasting background. In a preferred embodiment of the invention, the background is randomly mottled by using varying shades of tints of the same basic color.

As an example only, the chains might be printed in a dark green color on a mottled background consisting of various lighter shades and tints of green. Obviously, the invention is not limited to specific colors.

While to a casual observer, it would appear that the pattern is totally random over a complete length of carpeting, the pattern does, of course, repeat over the length of the carpet. The distance from a specific point on the pattern to the next point along the length of the carpet at which the pattern begins to repeat is referred to as the repeat length of the floor covering.

The pattern may also be repeated across the width of the floor covering. In a preferred embodiment of the invention, the pattern is repeated every 36 inches along the length of the carpeting and every 36 inches across the width of the carpeting. The overall pattern size can, of course, be increased or decreased.

The chains of symbols occurring within the overall pattern are insubstantial in size relative to the size or repeat length of the pattern. While the chains are of substantially the same width, a term defined by reference to arrow 20 in Figure 1, the length, as defined as arrow 22 in Figure 1, of different chains varies considerably although the longest of the chains is still much shorter than the repeat length of the floor covering.

Preferably, the longest chain of symbols is in a range of 10 percent to 16 percent of the repeat length of the floor covering. For a 36 inch repeat length, this means the longest chain of symbols is preferably 3.6 to 6 inches long.

The widest symbol in any chain of symbols is preferably in a range of 1 percent to 3 percent of the repeat length of the floor covering. Again, assuming a 36 inch repeat length, the widest symbol is preferably .36 to 1.08 inches wide.

In one embodiment of the invention, the repeat length for the pattern was 36 inches, the longest chain of symbols was approximately 4.5 inches long, and the widest symbol was approximately 0.5 inches wide. Nearly all of the symbols in this embodiment were 0.5 inches in width.

Referring to Figure 2, two slightly separated pieces of similarly-patterned carpeting are shown. A careful inspection of the chains of symbols on each piece of carpeting adjacent the separation shows that the pattern is not matched at the separation. That is, a chain appearing on one side of the separation is not continued on the opposite side of the separation.

Referring to Figure 3, the two pieces of carpeting have been butted at a seam SS which is well "hidden"; i.e., not readily discernible to a casual observer. Because of the random orientation, random shapes and existing discontinuities in the chains of symbols on each piece of carpeting, the discontinuities in the chains at the seam are not readily noticeable. In fact, the visibility of the seam in Figure 3 has been enhanced by butting the carpeting pieces so that the pile bias on one piece does not match the pile bias on the other piece.

WHAT WE CLAIM IS:—

1. A floor covering capable of forming a seam not readily discernible to an observer, said floor covering having a pattern on a contrasting background, which pattern includes randomly-oriented chains of repeated, connected symbols and randomly-oriented chains of repeated, discontinuous symbols.

2. A floor covering as recited in Claim 1 wherein the chains of symbols are of different lengths but similar widths.

3. A floor covering as recited in Claim 1 substantially as photographically depicted in Figure 1.

4. A floor covering as recited in Claim 2 wherein the chains are of insubstantial size relative to the repeat length of the floor covering.

5. A floor covering as recited in Claim 2 wherein the longest chain of symbols is in a range of 10 percent to 16 percent of the repeat length of the floor covering.

6. A floor covering as recited in Claim 5 wherein the widest symbol in any chain of symbols is in a range of 1 percent to 3 percent of the repeat length of the floor covering.

7. A floor covering as recited in Claim 2 wherein the background is mottled, comprising different shades of a single color.

8. A floor covering as recited in Claim 6, wherein the background is mottled, comprising different shades of a single color.

9. A floor covering capable of forming a seam not readily discernible to an observer, said floor covering having a pattern including randomly-oriented chains of repeated symbols.

10. A floor covering as recited in Claim 9 wherein said chains differ in length but do not differ significantly in width.

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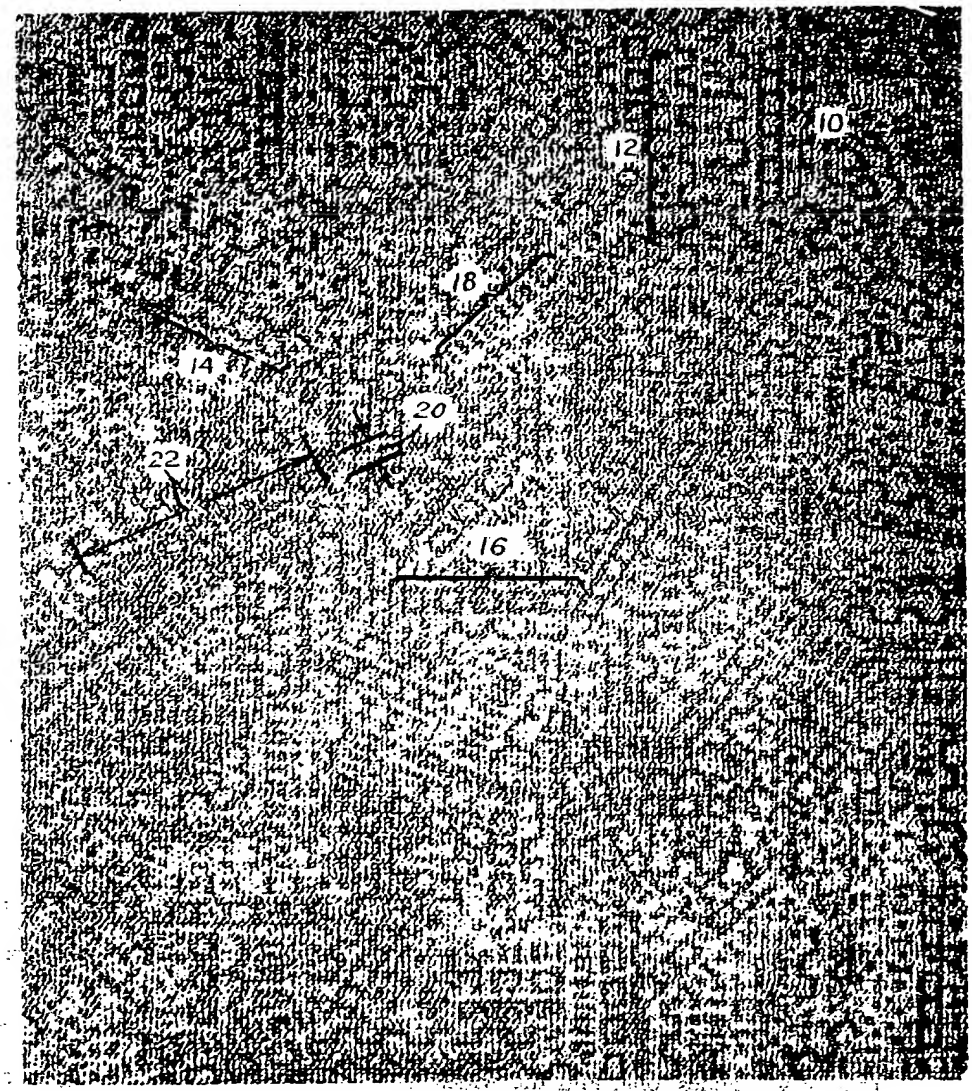
SHEET 1

Fig. 1.



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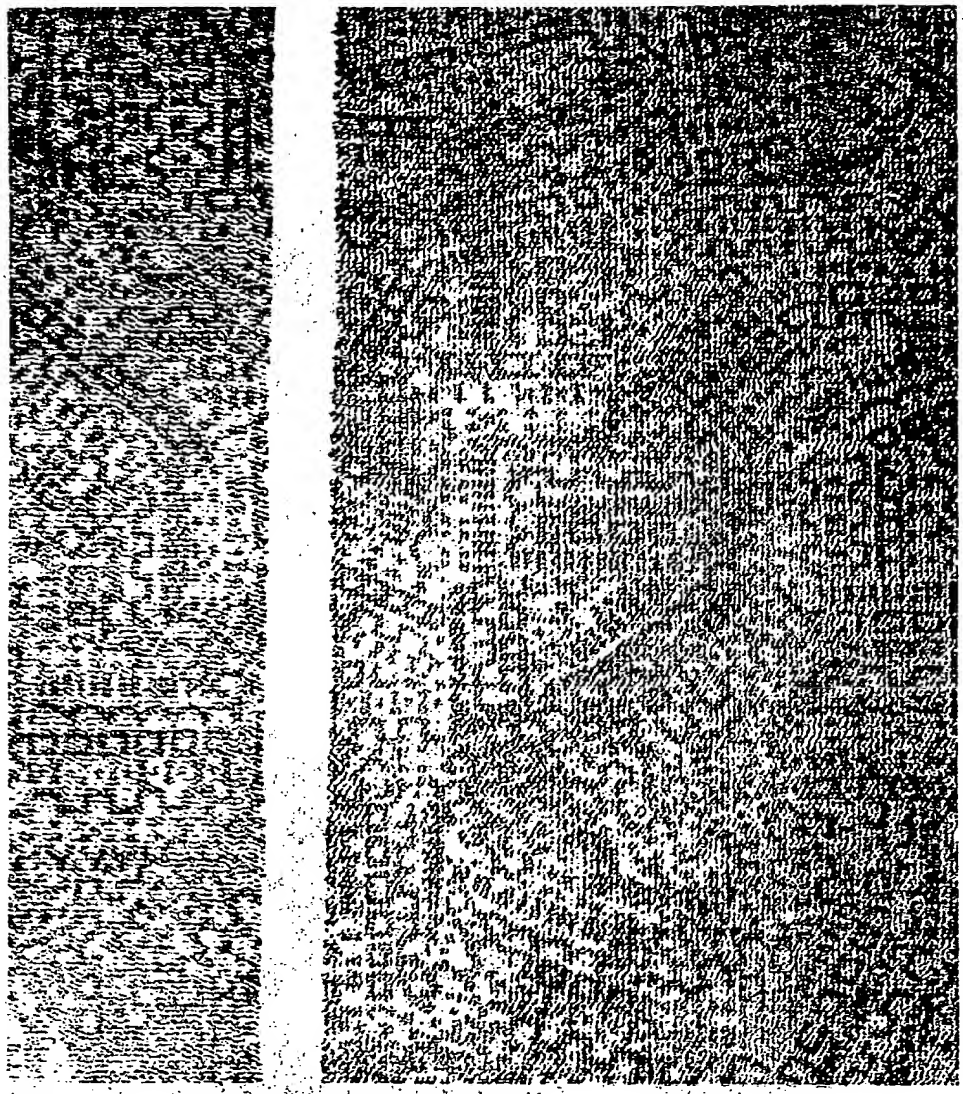
SHEET 2

Fig. 2.



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SHEET 3

Fig. 3.